

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S7	160	(human adj IL-7) or (human adj IL7)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:45
S8	12	S7 and HGF	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/27 15:09
S10	6	"5637323"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 06:40
S18	19401	IL-7 or IL7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:30
S19	10	S18 and (HGF same \$dimer) and Fc and (albumin or HSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:35
S20	1	S19 and @ay<="2002"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:38
S21	3407	S18 and Fc and (albumin or HSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:43

EAST Search History

S29	160	(human adj IL-7) or (human adj IL7) or rh-IL7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:46
S30	87	S29 and @ay<="2002"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:04
S31	2	S30 and (IL-2 or IL2) and (hepatitis same virus) and adjuvant\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 07:57
S32	74	S30 and (IL-2 or IL2)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 08:40
S34	65	S32 and (fc or albumin)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 08:51
S36	5	S32 and (hepatitis)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:00
S37	3203	Fc and albumin and (conjugate or fusion) and IL-7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:02

EAST Search History

S38	5	S37 and (hepatitis same virus) and (HGF same IL-7)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:03
S41	565	(IL-7 or IL7) same (albumin or HSA or Fc)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 14:28
S43	206	S41 and @ay<="2002"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:38
S45	2	"20020058791"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 13:29
S49	161	S18 same (conjugat\$ or fusion) same (Fc or albumin or HSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 09:39
S57	3	"6713053"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/28 14:59

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(FILE 'HOME' ENTERED AT 09:20:12 ON 29 AUG 2007)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS, PCTFULL' ENTERED AT 09:20:29 ON 29
AUG 2007

L1 19418 S IL-7 OR IL7 OR (INTERLEUKIN 7)
L2 2067 S L1 AND DISULFIDE
L3 1886 S L2 AND (HGF OR FC OR ALBUMIN)
L4 2359 S L1 AND ((CONJUGAT? OR FUSED OR FUSION) (S) (FC OR IMMUNOGLOBU
L5 2067 S L1 AND L2
L6 1578 S L2 AND L4
L7 400 S L6 AND HGF
L8 318 S L7 AND PY<=2002
L9 318 DUP REM L8 (0 DUPLICATES REMOVED)
L10 5 S L1 AND ((CYS2 OR C2) (S) (CYS92 OR C92) (S) (CYS34 OR C34) (S
L11 4 DUP REM L10 (1 DUPLICATE REMOVED)
L12 438 S MORRE M/AU OR ASSOULINE B/AU OR CORTEZ P/AU OR GREGOIRE A/AU
L13 7 S L1 AND L12
L14 7 DUP REM L13 (0 DUPLICATES REMOVED)

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<!--StartFragment-->RESULT 1
IL7_HUMAN
ID IL7_HUMAN STANDARD; PRT; 177 AA.
AC P13232;
DT 01-JAN-1990, integrated into UniProtKB/Swiss-Prot.
DT 01-JAN-1990, sequence version 1.
DT 30-MAY-2006, entry version 65.
DE Interleukin-7 precursor (IL-7).
GN Name=IL7;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
OC Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89098903; PubMed=2643102;
RA Goodwin R.G., Lupton S., Schmierer A., Hjerrild K.J., Jerzy R.,
RA Clevenger W., Gillis S., Cosman D., Namen A.E.;
RT "Human interleukin 7: molecular cloning and growth factor activity on
RT human and murine B-lineage cells.";
RL Proc. Natl. Acad. Sci. U.S.A. 86:302-306(1989).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=90229755; PubMed=2329282;
RA Lupton S.D., Gimpel S., Jerzy R., Brunton L.L., Hjerrild K.A.,
RA Cosman D., Goodwin R.G.;
RT "Characterization of the human and murine IL-7 genes.";
RL J. Immunol. 144:3592-3601(1990).
RN [3]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Pancreas;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnierch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [4]
RP DISULFIDE BONDS, AND MASS SPECTROMETRY.
RX MEDLINE=98070497; PubMed=9407080; DOI=10.1074/jbc.272.52.32995;
RA Cosenza L., Sweeney E., Murphy J.R.;
RT "Disulfide bond assignment in human interleukin-7 by matrix-assisted
RT laser desorption/ionization mass spectroscopy and site-directed
RT cysteine to serine mutational analysis.";
RL J. Biol. Chem. 272:32995-33000(1997).
RN [5]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=97015912; PubMed=8862549;
RA Kroemer R.T., Doughty S.W., Robinson A.J., Richards W.G.;
RT "Prediction of the three-dimensional structure of human interleukin-7
RT by homology modeling.";
RL Protein Eng. 9:493-498(1996).
RN [6]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=20306974; PubMed=10850801;
RA Cosenza L., Rosenbach A., White J.V., Murphy J.R., Smith T.F.;
RT "Comparative model building of interleukin-7 using interleukin-4 as a
RT template: a structural hypothesis that displays atypical surface
RT chemistry in helix D important for receptor activation.";
RL Protein Sci. 9:916-926(2000).

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CC -!- FUNCTION: Hematopoietic growth factor capable of stimulating the
 CC proliferation of lymphoid progenitors. It is important for
 CC proliferation during certain stages of B-cell maturation.
 CC -!- INTERACTION:
 CC P31785:IL2RG; NbExp=2; IntAct=EBI-80516, EBI-80475;
 CC P16871:IL7R; NbExp=3; IntAct=EBI-80516, EBI-80490;
 CC -!- SUBCELLULAR LOCATION: Secreted protein.
 CC -!- SIMILARITY: Belongs to the IL-7/IL-9 family.
 CC -----
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>
 CC Distributed under the Creative Commons Attribution-NoDerivs License
 CC -----
 DR EMBL; J04156; AAA59156.1; -, mRNA.
 DR EMBL; M29053; AAC63047.1; -, Genomic_DNA.
 DR EMBL; M29048; AAC63047.1; JOINED; Genomic_DNA.
 DR EMBL; M29049; AAC63047.1; JOINED; Genomic_DNA.
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 DR EMBL; M29052; AAC63047.1; JOINED; Genomic_DNA.
 DR EMBL; BC047698; AAH47698.1; -, mRNA.
 DR PIR; A43527; A32223.
 DR PIR; B32223; B32223.
 DR PIR; C32223; C32223.
 DR UniGene; Hs.591873; -.
 DR PDB; 1IL7; Model; @=26-177.
 DR IntAct; P13232; -.
 DR Ensembl; ENSG00000104432; Homo sapiens.
 DR HGNC; HGNC:6023; IL7.
 DR MIM; 146660; gene.
 DR GO; GO:0005576; C:extracellular region; TAS.
 DR GO; GO:0005139; F:interleukin-7 receptor binding; TAS.
 DR GO; GO:0005515; F:protein binding; IPI.
 DR GO; GO:0045453; P:bone resorption; ISS.
 DR GO; GO:0007267; P:cell-cell signaling; TAS.
 DR GO; GO:0006959; P:humoral immune response; TAS.
 DR GO; GO:0043066; P:negative regulation of apoptosis; ISS.
 DR GO; GO:0009887; P:organ morphogenesis; TAS.
 DR GO; GO:0030890; P:positive regulation of B cell proliferation; ISS.
 DR GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
 DR GO; GO:0045582; P:positive regulation of T cell differentiation; ISS.
 DR InterPro; IPR001181; Interleukin-7.
 DR InterPro; IPR000226; Interleukin_7_9.
 DR PANTHER; PTHR10526; Interleukin-7; 2.
 DR Pfam; PF01415; IL7; 1.
 DR PIRSF; PIRSF001942; IL-7; 1.
 DR PRINTS; PR00435; INTERLEUKIN7.
 DR ProDom; PD013168; Interleukin-7; 1.
 DR SMART; SM00127; IL7; 1.
 DR PROSITE; PS00255; INTERLEUKIN_7_9; 1.
 KW 3D-structure; Cytokine; Glycoprotein; Growth factor; Signal.
 FT SIGNAL 1 25
 FT CHAIN 26 177 Interleukin-7.
 FT /FTId=PRO_0000015623.
 FT CARBOHYD 95 95 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 116 116 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 141 141 N-linked (GlcNAc...) (Potential).
 FT DISULFID 27 166
 FT DISULFID 59 154
 FT DISULFID 72 117
 FT STRAND 27 27
 FT HELIX 28 41
 FT TURN 42 44
 FT HELIX 45 52
 FT STRAND 55 55
 FT STRAND 64 64
 FT STRAND 68 70
 FT HELIX 71 89
 FT STRAND 90 93
 FT STRAND 95 96
 FT HELIX 99 106
 FT TURN 107 107
 FT HELIX 108 119
 FT TURN 120 120
 FT HELIX 121 124
 FT TURN 125 126
 FT STRAND 127 127

FT	TURN	141	144
FT	STRAND	145	146
FT	HELIX	147	172
SQ	SEQUENCE	177 AA;	20187 MW; 8FC5243F9169617F CRC64;

Query Match . 99.4%; Score 796; DB 1; Length 177;

Best Local Similarity 100.0%; Pred. No. 3.1e-65;

Matches 152; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      26 DCDIEGKDGKQYESVLMSIDQLLDSMKEIGSNCLNNEFNFFKRHICDANKEGMFLPRAA 85
      |||
Qy      62 RKL RQFLKMNSTGDFDLHLLKVSEGTITLLNCTGQVKGRKPAALGEAOPTKSLEENKSLK 12
      |||
Db      86 RKL RQFLKMNSTGDFDLHLLKVSEGTITLLNCTGQVKGRKPAALGEAOPTKSLEENKSLK 14
      |||
Qy      122 EQKKLNDLCFLKRLQLQEIKTWNKILMGTKEH 153
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Db      146 EQKKLNDLCFLKRLQLQEIKTWNKILMGTKEH 177
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